

THERE IS CLAIMED:

1. A method of detecting a frequency or a combination of frequencies in a signal by processing said signal by means of an appropriate algorithm, which method includes an operation of estimating filter coefficients for characterizing said signal using a least mean squares algorithm and an operation of computing a Euclidean distance between said signal to which said detection method is applied and at least said frequency or combination of frequencies to be detected using said filter coefficients obtained for said signal to which said detection method is applied by said estimation operation and the same number of corresponding particular filter coefficients that characterize said frequency or combination of frequencies to be detected, said frequency or combination of frequencies being considered as having been detected in said signal to which said detection method is applied if the computed Euclidean distance is below a particular threshold value.
2. The method claimed in claim 1 wherein said threshold value corresponds to a Euclidean distance between said signal to which said detection method is applied and a particular signal normally included in said signal to which said detection method is applied, said distance being computed using said filter coefficients obtained for said signal to which said detection method is applied by said estimation operation and the same number of corresponding predetermined filter coefficients that characterize said particular signal.
3. The method claimed in claim 2 wherein said particular signal taken into account in determining said Euclidean distance constituting said threshold value is a white noise signal.
4. The method claimed in claim 1 including computing at least one additional Euclidean distance between said signal to which said detection method is applied and another particular signal likely to be contained in said signal to which said detection method is applied to constitute an additional threshold value which is compared with the estimated Euclidean distance between said signal to which said detection method is applied and said frequency or combination of frequencies to be detected.
5. Telecommunication equipment, in particular telephone and/or mobile telephone signaling processing equipment, including a signal processor programmed:
  - to estimate filter coefficients for characterizing a signal to which a detection method is applied by means of a least mean squares algorithm,

- to compute a Euclidean distance between said signal to which said detection method is applied and at least said frequency or combination of frequencies to be detected using said filter coefficients obtained for said signal to which said detection method is applied by said estimation operation and the same number of corresponding particular filter coefficients that characterize said frequency or combination of frequencies to be detected, and

- to provide a signal indicating that said frequency or said combination of frequencies has been detected in said signal to which said detection method is applied if the computed Euclidean distance is less than a particular threshold value.